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ABSTRACT

Each of a preliminary sample of 1545 words was rated for pleasantness by 26 to 33 college students. Two hundred seventy-four of those words were selected on the basis of their high or low ratings and, with 125 others, were then rated by additional groups of 62 to 76 college students on five-point rating scales for the dimensions of pleasantness, imagery, and familiarity. The resulting mean ratings were highly correlated with the ratings obtained by other investigators using some of the same words. However, systematic differences in the ratings were found for male and female raters. Females tended to use more extreme ratings on the pleasantness scale and tended to rate words higher on the imagery and familiarity scales. Because of these differences, the mean ratings of each word are presented for males, females, and males and females combined. Whether these sex differences represent cognitive differences between the sexes or merely differences in rating response style can be determined only by further research using this sample of words. An appendix provides the mean ratings of pleasantness, imagery, and familiarity by males and females for 399 words. (Author/MSE)

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RATINGS OF 399 WORDS ON PLEASANTNESS, IMAGERY, AND FAMILIARITY

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Running head: Pleasantness Norms

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Abstract

Each of a preliminary sample of 1545 words was rated for pleasantness by 26 to 33 college students. Two hundred and seventy-four of these words were selected on the basis of their high or low ratings. These words, along with 125 others (Rubin, 1981), were then rated by additional groups of 62 to 76 college students on 5-point rating scales for the dimensions of pleasantness, imagery, and familiarity. The resulting mean ratings were highly correlated with the ratings obtained by other investigators using some of the same words. However, systematic differences in the ratings were found for male versus female raters. Females tended to use more extreme ratings than did males when rating words on the pleasantness scale. Also, females tended to rate words higher on the imagery and familiarity scales. Because of these differences, the mean ratings of each word are presented for males, females, and males and females combined. Whether these sex differences in ratings represent cognitive differences between the sexes or merely differences in rating response style is a question that can be determined only by further research using this sample of words.

Pleasantness Norms

Ratings of 399 Words on Pleasantness, Imagery, and Familiarity

The role of affect, mood, and emotional state in cognitive processes has been, and remains, an active area of research (e. g., Isen, 1984). Some of the studies on this topic have investigated memory for words that have affective or emotional connotation (e. g., Anisfeld & Lambert, 1966; Bousfield, 1950; Broadbent & Gregory, 1967; Cason & Lungren, 1932; Levinger & Clark, 1961; Teasdale & Russell, 1983; White, 1936). Brown (1976) has provided a catalog of published studies reporting scaled verbal material. Words have been rated on affective dimensions such as pleasantness, desirability, goodness, and likeability. Although these evaluative terms have slightly different meanings, the ratings of words on these scales are highly intercorrelated. For example, Brown and Ure (1969) found a correlation of .96 between the goodness and pleasantness scales, and Rubin (1980) found a correlation of .95.

Each of the existing sets of normative data on pleasantness and related dimensions has significant limitations. The likeability norms of Anderson (1968) are extensive but use only personality trait words. The norms of Brown and Ure (1969) include 650 words comprising different parts of speech, but few of them are rated as very pleasant or unpleasant. Also, Brown and Ure's words include sets with the same root, such as beauty, beautiful and friend, friendly.

Pleasantness Norms

The lack of a large number of pleasant and unpleasant words is the major problem in most of the norms of pleasantness-goodness published so far. For example, Rubin's (1981) extensive analysis of the rated characteristics of 125 nouns was performed on only 125 words. Other lists also contain too few words (Silverstein & Dienstbier, 1968; Ledgerwood, 1932). Toglia and Battig (1978) include pleasantness ratings for 2854 words and letter strings. However, as with the Brown and Ure norms, few of these words receive extremely high or low mean pleasantness ratings.

Additionally, words for which norms on various affective dimensions have been obtained have not also been rated on other dimensions. This is significant because the manner in which a word is processed in any cognitive task may depend not only on its affective characteristics but also on other dimension such as imagery, familiarity, and meaningfulness (Rubin, 1980; Toglia & Battig, 1978).

The purpose of the present study was to establish norms for ratings of pleasantness, visual imagery, and familiarity for a sample of words that was selected to include many that should be rated low or high in pleasantness.

Method

Phase 1. A total of 1545 words were chosen from Thorndike and Lorge (1944). These words were judged by the experimenters as likely to be either pleasant or unpleasant for a large number of

people. The list of words was arranged in alphabetical order. From each set of five adjacent words, one word as assigned to each of the five forms of test booklet. Hence, each test form was made up of 309 words. Each test form was administered to a group of college students enrolled in introductory courses in psychology who received course credit for their participation. The number of subjects tested using each form varied from 26 to 33. The subjects rated each word on a 5-point scale of pleasantness with a rating of 1 meaning "very unpleasant" and a rating of 5 meaning "very pleasant". A 5-point rating scale was used so that the response sheets could be machine scored by the computer facilities available to the authors. The instructions used were as follows:

> The purpose of this experiment is to find out whether or not college students have positive or negative feelings about different words. Words differ in the kinds of emotions that they can make people feel. The purpose of this experiment is to have you rate a list of approximately 300 words with regard to how pleasant or unpleasant they are; that is how pleasant or unpleasant they make you feel. You should read each word very carefully. Then after you read it fill in one of the circles on the response sheet that has the same identification number as the word you are rating. Make sure that you fill in each circle completely. Use the

5-point scale on the front page of the booklet. If the word has a very pleasant meaning for you, then rate it a 5. If the word has a somewhat pleasant meaning for you, then rate it a 4. If the word has no pleasant or unpleasant meaning for you, then rate it a 3. If the word has a somewhat unpleasant meaning for you, then rate it a 2. Finally, if the word has a very unpleasant meaning, then rate it a 1. Try to use all 5 points on the rating scale. Remember to read each word carefully before you rate it. Make your rating on the basis of how you feel about the word, not on how you think people in general would rate the word. If you come across a word that you do not know, then do not rate it. Leave the spaces blank on the response sheet. Also, if you come across a word that you think is spelled wrong, do not rate it. However, try to rate as many words as you can. You have to spend at least 30 minutes doing this task. So try to take at least 5 seconds to rate each word. Any questions?

Subjects were instructed not to rate words that seemed to be spelled wrong in order to eliminate misinterpretations of words. This happened rarely, and most subjects rated all the words.

After the mean ratings were computed, a number of words were eliminated in the following manner. First, for each group of words with the same root, such as addict, addicted, and

addiction, only that word from the group with the most extreme rating was included. Second, to obtain approximately equal numbers of pleasant and unpleasant words, those words with mean ratings above 4.25 (n = 129) and below 2.00 (n = 145) were retained. To these 274 words were added Rubin's (1981) 125 nouns. The inclusion of Rubin's 125 nouns permitted the total set of 399 words to include words that would not be perceived as either pleasant or unpleasant. Hence, in the testing done in Phase 2, the subjects would not infer that all the words in the list had to be judged either pleasant or unpleasant.

Phase 2. The final list of 399 words was randomized five different times to create five different test forms. These words were again rated on a 5-point scale of pleasantness by 40 males and 36 females. The instructions used were the same as those used in Phase 1 except that the subjects were told that had to rate approximately 400 words rather than 300. In addition, 27 males and 35 females rated the words on a 5-point scale of visual imagery, and 29 males and 34 females rated the words on a 5-point scale of familiarity. The subjects were tested in groups ranging from 15 to 25 subjects, and no subject rated the words on more than one scale. The subjects in the imagery condition were given instructions for the imagery rating task as follows:

> The purpose of this experiment is to find out whether or not college students can form mental pictures or visual images for different words. Words differ in how

much visual imagery they cause people to have. The purpose of this experiment is to have you rate a list of approximately 400 words with regard to how easily you can form a visual image or mental picture of what the word means or represents. You should read each word very carefully. Then after you read it fill in one of the circles on the response sheet that has the same identification number as the word you are rating. Make sure that you fill in each circle completely. Use the 5-point scale on the front page of the booklet. If the word creates a very clear and vivid visual image in your mind, then you should give the word a rating of 5. If the word creates a clear mental picture for you, then rate it a 4. If the image created by the word is somewhat unclear, then rate it a 3. If your mental picture is very unclear, then give the word a rating of 2. Finally, if you can form no image at all, give the word a rating of 1. Try to use all 5 points on the rating scale. Remember to read each word carefully before you rate it. Make your rating on the basis of how easily you can form a visual image for the word, not on how you think people in general would rate the word. If you come across a word that you do not know, then do not rate it. Leave the spaces blank on the response sheet. Also, if you come across a word that

you think is spelled wrong, do not rate it. However, try to rate as many words as you can. You have to spend at least 30 minutes doing this task. Try to take a least 5 seconds to rate each word. Any questions?

The subjects rating the words for familiarity were given instructions for the rating task as follows:

The purpose of this experiment is to find out how frequently college students come across various English words. Words differ in how frequently they are used and encountered in language. Some words such as the words "go", "eat", "drink", "table", and "want" are very frequently encountered by college students, because you use these words in your speech, hear other people use these words, use these words in writing, and also read these words in books and newspapers. Other words such as "spanner", "warlock", "surtax", and "archive" are less frequently encountered by college students, because these words are not often spoken, heard, read, or written. The purpose of this experiment is to have you rate a list of approximately 400 words with regard to how frequently you either use these words or come across them in speech and writing. You should read each word very carefully. Then after you read it fill in one of the circles on the response sheet that has the same identification number as the

word you are rating. Make sure that you fill in each circle completely. Use the 5-point scale on the front page of the booklet. If the word is one that you encounter very frequently that is, it is a word you often read, hear, and use, then you should give the word a rating of 5. If the word is one you encounter fairly frequently, then rate it a 4. If the word is encountered often, then rate it a 3. If the word appears somewhat infrequently, then give the word a rating of 2. Finally, if the word is one that appears very infequently, then give the word a rating of 1. Try to use all 5 points on the rating scale. Remember to read each word carefully before you rate it. If you come across a word that you do not know, then do not rate it. Leave the spaces blank on the response sheet. Also, if you come across a word that you think is spelled wrong, do not rate it. However, try to rate as many words as you can. You have to spend at least 30 minutes doing this task. Try to take a least 5 seconds to rate each word. Any questions?

Results

Mean pleasantness, imagery, and familiarity ratings were computed for each of the 399 words. Using these 399 words as a sample, it was found that the product moment correlation between the mean pleasantness ratings and the mean imagery ratings was

.26. The correlation between the pleasantness and familiarity ratings was .46, and between imagery and familiarity was .21. Hence, these three attributes of the words were not correlated with one another to the extent that the attributes were redundant.

Interstudy Reliabilities

The mean ratings obtained in this study were correlated with ratings found in previous studies for various subsets of the words. The present pleasantness ratings correlated .97 (155 words) with the goodness ratings reported by Rubin (1981) and correlated .87 (73 words) with the pleasantness ratings reported by Toglia and Battig (1978). The present imagery ratings correlated .94 (148 words) with the imagery ratings of Paivio, Yuille, and Madigan (1968) and correlated .85 (73 words) with the imagery ratings reported by Toglia and Battig (1978). Finally, the present familiarity ratings correlated .72 (73 words) with the familiarity ratings reported by Toglia and Battig (1978). All these correlations are high except for the correlations between the collected familiarity ratings and those reported by Toglia and Battig. It appears that familiarity ratings are less reliable than those of pleasantness or imagery.

Male-Female Differences

Correlations were computed between the mean ratings provided by the males and females over the 399 words. The correlation on the pleasantness scale was .99, on the imagery scale was .93, and

on the familiarity scale was .90. Despite this general evidence of between-gender agreement, there were differences in the means and distributions of ratings for males and females on the three scales.

Overall Mean Differences

The mean pleasantness rating given by males was 3.10, and the mean pleasantness rating given by females was 3.06. Computing a correlated t test over the 399 words, this difference was small but significant, $t(398) = 3.19$, $p < .002$. The mean imagery rating given by males was 3.57 and the mean imagery rating given by females was 3.85, $t(398) = 20.95$, $p < .001$. The mean familiarity rating given by males was 2.87 and that given by females was 3.03, $t(398) = 8.41$, $p < .001$. In summary, males rated words as slightly more pleasant than did females, but females rated words as higher in imagery and as more familiar than did males.

Sex Differences on Individual Words

In the appendix those combined mean ratings for which males rated the word significantly higher than females at the $p < .05$ level have the letter m placed next to them. Those combined mean ratings for which females rated the word significantly higher than males have the letter f placed next to them. This indexing provides only a rough indication of those words on which males and females differed, because a small proportion of the indicated differences may be the result of chance. Of the 19 unpleasant

words rated significantly differently by males and females, all were rated higher (less unpleasant) by males. The six unpleasant words showing the greatest difference between males and females and rated as more unpleasant by females were cemetery, dagger, jealousy, pervert, vomit, and whore. Of the 24 pleasant words rated significantly differently by males and females, 6 were rated as more pleasant by males. These were agility, breast, capacity, engine, girl, and woman. The six pleasant words showing the greatest difference in ratings between males and females and rated more pleasant by females were cheer, love, romantic, sentimental, thoughtful, and wedding. Of the 58 words rated differently in visual imagery by males and females, only 1 was rated higher in imagery by males, execution. The six words showing the greatest difference in visual imagery between males and females and rated as higher in visual imagery by females were clothing, handsome, hurt, rattle, sapphire, and ugly. Of the 59 words rated differently in familiarity by males and females, only 7 were rated higher by males. These were corpse, engine, green, lake, maggot, nazi, and slaughter. The six words showing the greatest difference in familiarity between males and females that females rated as being more familiar were adorable, cozy, cuddly, fragrance, hurt, and stress.

Sex Differences in Extremity of Pleasantness Ratings

The distributions of ratings on the three scales for males and females are given in Table 1.

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Insert Table 1 about here.

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The distributions of ratings for imagery and familiarity support the result that females rated the words higher than males on both these scales. The distributions of ratings for pleasantness, however, are interesting because they indicate that females rated unpleasant words more unpleasant and pleasant words more pleasant than did males. Therefore, although the means were comparable for males and females on the pleasantness scale, the females gave more extreme ratings. An overall test of this sex difference in extremity of pleasantness ratings is given by the correlation across the 399 words of each word's pleasantness rating with its female-minus-male difference in mean pleasantness. This correlation was $r = .52$, $df = 397$, $p < .001$.

In general, the greater the deviation from the center of the rating scale was a word's pleasantness rating, then the more likely it was that the females gave the word a more extreme pleasantness rating than did the males.

General Discussion

The reason for collecting the normative data reported here was to provide a large number of words rated positive or negative in pleasantness for use in studying the role of affect in the cognitive processing of words. The mean pleasantness ratings for our sample of 399 words are presented for males and females

separately along with ratings for males and females combined. Also presented are imagery and familiarity ratings for these words, so that these factors can be controlled or otherwise taken into account. Females tended to rate words as more extreme on the pleasantness scale than did males. This occurred even though the correlation between the male and female mean pleasantness ratings over the 399 words was .99. Also, when using the imagery and familiarity scales, females tended to rate the words higher than did males.

Whether these differences represent underlying cognitive and affective differences between males and females or represent differences in response style is a question that cannot be answered here. However, the results cannot be attributed to any simple gender-associated response bias, because the gender difference patterns for pleasantness were different from those of imagery and familiarity.

In an initial study using the normative data reported here, Banaji, Bellezza, and Greenwald (1985) asked college students to rate the present 399 words on scales of pleasantness, emotionality, and imagery. This rating task was followed by a surprise test of free recall. In their rating data, Banaji et al. replicated the gender differences in pleasantness found here. That is, females rated words more extremely pleasant or unpleasant than did males. Banaji et al. also found that more extremely pleasant and unpleasant words were better remembered,

replicating previous finding by Kanungo & Dutta (1966). Importantly, however, Banaji et al. found no difference in the effect of affective intensity on recall for males versus females. If the ratings really represented true sex differences in affective experience of the words, then females should have recalled relatively more of the extremely pleasant and unpleasant words.

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Pleasantness Norms

Appendix

Mean Ratings of Pleasantness, Imagery, and Familiarity by Males and Females for 399 Words

	Pleasantness			Imagery			Frequency		
	Male Mean	Female Mean	Comb. Mean	Male Mean	Female Mean	Comb. Mean	Male Mean	Female Mean	Comb. Mean
abuse	1.62	1.44	1.53	2.93	3.60	3.31f	2.69	3.26	3.00
accident	1.54	1.47	1.51	4.00	4.14	4.08	3.45	3.47	3.46
achievement	4.51	4.63	4.57	2.58	3.34	3.02f	3.10	3.65	3.40
adorable	4.33	4.47	4.40	3.33	3.63	3.50	2.66	3.76	3.25f
affectionate	4.49	4.64	4.56	3.08	3.74	3.46f	3.00	3.79	3.43f
afraid	2.17	1.92	2.05	2.96	3.58	3.30	3.34	4.15	3.78f
agility	4.28	3.67	3.99m	3.22	2.97	3.08	2.38	2.21	2.29
agony	1.70	1.42	1.57	3.22	3.40	3.32	2.10	2.32	2.22
ambition	4.08	4.50	4.28f	2.59	2.80	2.71	3.00	3.74	3.40f
ambulance	1.95	1.94	1.95	4.67	4.69	4.68	2.86	2.53	2.68
angel	4.41	4.61	4.51	4.26	4.54	4.42	2.48	2.65	2.57
anger	1.82	1.58	1.71	3.41	3.57	3.50	3.28	4.06	3.70f

Pleasantness Norms

annoy	1.82	1.69	1.76	2.59	2.77	2.69	2.59	3.26	2.95f
anxiety	2.36	2.19	2.28	2.62	2.94	2.80	2.86	3.47	3.19f
army	2.49	2.20	2.35	4.27	4.37	4.33	3.41	2.82	3.10
assassin	1.57	1.54	1.56	3.67	3.49	3.56	2.38	2.29	2.33
assault	1.67	1.50	1.59	3.19	3.54	3.39	2.76	2.79	2.78
autumn	4.18	4.47	4.32	4.41	4.68	4.56	2.25	2.56	2.42
baby	4.41	4.50	4.45	4.74	4.82	4.79	3.34	3.65	3.51
bankrupt	1.75	1.50	1.63	2.85	3.09	2.98	2.48	2.65	2.57
bastard	1.63	1.36	1.50	3.04	3.32	3.20	3.07	2.91	2.98
beach	4.50	4.53	4.51	4.81	4.82	4.82	3.57	3.41	3.48
beauty	4.58	4.33	4.46	3.54	4.09	3.85f	3.48	3.64	3.56
beggar	1.90	1.75	1.83	4.00	4.29	4.16	1.71	1.97	1.85
betray	1.72	1.42	1.57	2.35	2.83	2.62	2.24	2.41	2.33
bird	4.20	3.83	4.03	4.67	4.82	4.75	3.69	3.44	3.56
birthday	4.26	4.58	4.41	3.81	4.32	4.10	3.00	3.85	3.46f
blackmail	1.58	1.50	1.54	2.96	2.94	2.95	2.24	2.32	2.29
bless	4.13	4.44	4.28	3.11	2.91	3.00	2.59	2.53	2.56

Pleasantness Norms

blind	1.57	1.89	1.72	3.48	3.83	3.68	2.34	2.53	2.44
blossom	4.34	4.50	4.42	3.65	4.20	3.97	2.22	2.29	2.26
blubber	1.82	1.69	1.76	3.89	4.06	3.98	1.86	2.47	2.19
bomb	1.65	1.36	1.51	4.26	4.09	4.16	3.24	2.79	3.00
book	3.69	3.69	3.69	4.52	4.69	4.61	4.62	4.65	4.63
bowl	3.33	3.25	3.29	4.15	4.57	4.39	3.39	3.79	3.61
boy	3.82	3.94	3.88	4.48	4.74	4.63	4.14	4.45	4.31
breast	4.21	3.57	3.91m	4.78	4.66	4.71	3.79	3.18	3.46
brother	4.35	4.08	4.22	4.12	4.51	4.34	3.89	3.88	3.89
brutal	1.74	1.33	1.54	3.07	3.14	3.11	2.24	2.12	2.17
bunny	4.35	4.31	4.33	4.44	4.83	4.66f	2.14	2.79	2.49
burial	1.47	1.37	1.42	3.85	4.14	4.02	1.93	1.68	1.79
butter	3.63	3.39	3.51	4.56	4.86	4.73	3.34	3.56	3.46
butterfly	4.41	4.56	4.48	4.67	4.66	4.66	2.34	1.94	2.13
cake	4.18	4.36	4.27	4.56	4.91	4.76f	3.38	3.32	3.35
cancer	1.47	1.39	1.43	3.15	3.20	3.18	3.00	3.18	3.10
candy	4.16	4.25	4.20	4.54	4.74	4.66	3.38	3.88	3.65

Pleasantness Norms

capacity	3.47	3.03	3.27m	2.65	2.69	2.67	2.66	2.53	2.59
caress	4.47	4.64	4.55	3.67	3.97	3.84	2.28	3.09	2.71f
cemetery	2.00	1.31	1.67m	4.78	4.74	4.75	2.38	1.91	2.13
chair	3.32	3.19	3.26	4.37	4.77	4.60f	4.21	4.18	4.19
champion	4.36	4.47	4.41	3.48	4.00	3.77	2.86	2.71	2.78
charm	4.18	4.19	4.19	2.89	3.60	3.29f	2.59	2.94	2.78
cheer	4.34	4.69	4.51f	3.33	3.54	3.45	2.90	3.35	3.14
child	4.23	4.50	4.36	4.58	4.69	4.64	3.32	3.88	3.62f
church	4.03	4.36	4.19	4.70	4.85	4.79	3.17	3.12	3.14
circus	3.79	4.28	4.03f	4.35	4.76	4.58f	2.00	2.06	2.03
city	3.42	3.56	3.49	4.58	4.56	4.57	4.07	3.91	3.98
clothing	3.95	4.31	4.12f	4.26	4.91	4.62f	3.90	4.06	3.98
cockroach	1.55	1.56	1.55	4.44	4.53	4.49	2.21	2.41	2.32
coffin	1.71	1.33	1.53	4.35	4.59	4.48	2.17	1.71	1.92
comedy	4.38	4.37	4.38	3.93	3.50	3.69	3.34	3.26	3.30
comparison	3.10	3.25	3.17	2.58	2.71	2.66	2.97	3.24	3.11
confident	4.44	4.22	4.33	2.74	3.23	3.02	3.24	3.59	3.43

Pleasantness Norms

constipation	1.63	1.47	1.55	2.93	3.20	3.08	1.83	1.91	1.87
contents	3.49	3.22	3.36	2.30	2.91	2.65f	2.72	2.91	2.83
context	3.05	2.94	3.00	2.07	2.40	2.26	2.28	2.76	2.54
corpse	1.57	1.44	1.51	4.07	4.14	4.11	2.45	1.79	2.10m
cottage	4.08	4.28	4.17	4.41	4.63	4.53	2.38	2.24	2.30
cozy	4.38	4.53	4.45	3.15	3.69	3.45	2.17	3.26	2.76f
crash	1.67	1.44	1.56	4.19	4.18	4.18	3.00	3.24	3.13
crown	3.87	4.08	3.97	4.50	4.65	4.58	1.97	1.65	1.79
crucify	1.57	1.25	1.42	4.00	3.83	3.90	2.04	1.91	1.97
cuddle	4.32	4.64	4.47	3.37	3.97	3.70f	2.17	3.53	2.90f
custom	3.67	3.64	3.65	2.74	3.03	2.90	2.62	2.85	2.75
cute	4.49	4.25	4.37	3.48	4.15	3.85f	3.66	4.21	3.95f
cyclone	2.21	2.00	2.11	3.93	3.63	3.76	1.62	1.38	1.49
dagger	2.29	1.57	1.95m	4.33	4.00	4.15	1.79	1.56	1.66
death	1.36	1.58	1.47	3.54	4.23	3.93f	3.24	3.35	3.30
debt	1.80	1.69	1.75	2.78	3.20	3.02	3.03	3.03	3.03
decompose	1.61	1.39	1.50	3.11	3.17	3.15	1.86	1.79	1.83

Pleasantness Norms

delight	4.21	4.46	4.33	2.85	3.17	3.03	2.66	3.15	2.92
demon	1.82	1.57	1.71	3.70	3.51	3.60	1.76	1.59	1.67
depression	1.69	1.56	1.63	3.19	3.41	3.31	3.31	3.82	3.59
deserter	1.87	1.89	1.88	2.88	2.86	2.87	1.90	1.71	1.79
despise	1.97	1.49	1.74m	2.70	2.94	2.84	2.31	2.65	2.49
destroy	1.95	1.58	1.78	3.26	3.23	3.24	3.14	2.79	2.95
detest	2.05	1.64	1.85	2.52	2.40	2.45	2.07	2.47	2.29
devil	1.52	1.19	1.37	4.00	3.91	3.95	2.41	2.24	2.32
diamond	4.46	4.56	4.51	4.63	4.83	4.74	2.93	3.15	3.05
diploma	4.57	4.42	4.50	4.38	4.49	4.44	3.10	3.03	3.06
disappointmen	1.72	1.64	1.68	2.69	3.37	3.08f	3.07	3.68	3.40f
disaster	1.46	1.49	1.47	3.69	3.80	3.75	2.79	3.15	2.98
disloyal	1.82	1.72	1.77	2.52	2.89	2.73	2.07	2.53	2.32
divorce	1.60	1.61	1.61	3.37	3.14	3.24	2.97	3.38	3.19
doctor	3.59	3.33	3.47	4.37	4.71	4.56	3.55	3.76	3.67
door	3.28	3.06	3.17	4.54	4.77	4.67	4.28	4.12	4.19
dreadful	1.61	1.37	1.49	2.46	2.86	2.69	2.39	2.44	2.42

Pleasantness Norms

dream	4.18	4.39	4.28	3.37	3.71	3.56	3.72	4.09	3.92
dress	3.85	4.06	3.95	4.59	4.74	4.68	3.31	4.18	3.78f
earth	4.15	4.06	4.11	4.41	4.49	4.45	3.45	3.32	3.38
easter	4.46	4.36	4.41	4.26	4.31	4.29	3.17	3.53	3.37
easygoing	4.31	4.33	4.32	3.11	3.57	3.37	2.90	3.53	3.24
eat	4.05	4.19	4.12	3.73	4.29	4.05	4.66	4.76	4.71
education	4.31	4.17	4.24	3.27	3.77	3.56	4.11	4.58	4.36f
elegant	4.38	4.36	4.37	3.30	3.82	3.59	2.34	2.41	2.38
employment	4.08	3.94	4.01	3.11	3.69	3.44	3.76	3.82	3.79
engaged	4.00	4.36	4.17	3.15	4.03	3.65f	2.86	3.47	3.19f
engine	3.38	2.75	3.08m	4.41	4.29	4.34	3.34	2.38	2.83m
enjoyment	4.50	4.67	4.58	3.04	3.57	3.34	3.21	3.79	3.52f
epilepsy	1.42	1.56	1.49	3.11	3.18	3.15	2.24	1.79	2.00
errand	3.07	3.17	3.12	2.41	3.29	2.90f	2.24	2.62	2.44
excellence	4.47	4.58	4.53	3.15	3.56	3.38	3.03	3.65	3.37f
exercise	3.88	4.17	4.01	3.67	4.43	4.10f	3.93	4.29	4.13
excitement	4.28	4.39	4.33	3.41	3.68	3.56	3.52	3.71	3.62

Pleasantness Norms

excuse	2.51	2.42	2.47	2.33	2.97	2.69f	3.48	3.91	3.71
execution	1.56	1.75	1.65	4.19	3.49	3.79m	2.31	1.97	2.13
failure	1.55	1.42	1.49	2.78	2.77	2.77	3.14	3.29	3.22
fame	4.15	4.33	4.24	3.19	3.54	3.39	2.62	3.18	2.92
family	4.52	4.75	4.63	4.41	4.83	4.65f	4.03	4.44	4.25
fat	1.66	1.58	1.62	4.15	4.71	4.47f	3.93	4.35	4.16
father	4.45	4.42	4.43	4.77	4.63	4.69	4.03	4.24	4.14
filth	1.67	1.50	1.59	3.54	3.86	3.72	2.29	2.62	2.47
fire	1.90	1.83	1.87	4.74	4.83	4.79	3.55	3.06	3.29
flabby	1.79	1.44	1.63m	3.68	4.15	3.95	2.21	2.85	2.55
flower	4.31	4.51	4.41	4.48	4.83	4.68f	3.00	3.65	3.35f
foul	1.97	1.77	1.88	2.67	2.94	2.82	2.62	2.65	2.63
fragrance	4.16	4.51	4.33	3.04	3.62	3.36	2.34	3.50	2.97f
fraud	1.50	1.58	1.54	2.48	2.71	2.61	2.38	2.26	2.32
freedom	4.47	4.61	4.54	3.04	3.43	3.26	3.34	3.53	3.44
friend	4.63	4.42	4.53	4.00	4.65	4.36f	4.62	4.62	4.62
frog	3.10	3.28	3.18	4.70	4.80	4.76	2.29	1.91	2.08

Pleasantness Norms

funeral	1.51	1.33	1.43	4.26	4.55	4.42	2.14	1.88	2.00
fungus	1.88	1.39	1.64m	3.74	3.89	3.82	2.24	1.68	1.94
fur	3.92	4.28	4.09	4.19	4.66	4.45	2.24	2.29	2.27
gangrene	1.56	1.44	1.51	2.73	2.97	2.87	1.79	1.50	1.63
garbage	1.77	1.58	1.68	4.56	4.60	4.58	3.79	4.03	3.92
gentle	4.52	4.46	4.49	3.23	3.53	3.40	2.90	3.53	3.24f
gift	4.44	4.53	4.48	3.93	4.59	4.30f	3.21	3.44	3.33
girl	4.52	4.17	4.36m	4.73	4.59	4.65	4.59	4.09	4.32
glacier	3.21	3.44	3.32	4.19	4.09	4.13	1.71	1.50	1.60
glamour	4.23	4.22	4.23	3.48	3.86	3.69	2.14	2.88	2.54f
gloom	1.90	1.53	1.72	2.85	3.11	3.00	1.83	2.24	2.05
glory	4.38	4.53	4.45	2.85	3.14	3.02	2.31	2.56	2.44
god	4.23	4.69	4.45f	3.31	3.65	3.50	3.76	3.59	3.67
gold	4.35	4.50	4.42	4.41	4.68	4.56	3.03	3.18	3.11
graduate	4.40	4.31	4.36	3.73	4.38	4.10f	4.00	3.97	3.98
green	3.67	3.43	3.55	4.48	4.66	4.58	4.21	3.50	3.82m
grief	1.65	1.53	1.59	3.07	3.26	3.18	2.10	2.47	2.30

Pleasantness Norms

guillotine	1.72	1.58	1.66	4.30	4.14	4.21	1.62	1.41	1.51
hammer	3.13	2.56	2.85m	4.63	4.86	4.76	2.59	2.24	2.40
handsome	4.26	4.49	4.37	3.37	4.34	3.92f	3.21	3.76	3.52
happy	4.46	4.67	4.56	3.59	4.11	3.89	3.97	4.53	4.27f
hatred	1.56	1.42	1.49	2.85	3.03	2.95	2.66	2.85	2.76
headache	1.62	1.64	1.63	3.04	3.56	3.33	3.66	3.97	3.83
health	4.56	4.44	4.51	3.04	3.59	3.34	3.52	3.94	3.75
heaven	4.38	4.83	4.60f	3.44	3.97	3.74	3.17	3.21	3.19
hide	2.67	2.69	2.68	3.04	3.51	3.31	2.72	2.88	2.81
history	3.46	3.54	3.50	2.78	3.09	2.95	3.48	3.44	3.46
hitler	1.46	1.14	1.31m	4.15	4.11	4.13	1.97	1.65	1.79
home	4.56	4.39	4.48	4.67	4.71	4.69	4.45	4.41	4.43
honest	4.49	4.64	4.56	2.85	3.20	3.05	3.24	3.79	3.53f
honor	4.51	4.49	4.50	2.74	3.09	2.94	3.11	3.03	3.06
horror	1.80	1.75	1.78	3.42	3.71	3.59	2.64	2.76	2.71
horse	3.95	4.03	3.99	4.69	4.71	4.70	2.52	2.76	2.65
hospital	2.40	2.31	2.36	4.52	4.74	4.65	3.41	3.03	3.21

Pleasantness Norms

hostage	1.77	1.47	1.63	3.63	3.69	3.66	2.41	2.32	2.37
hug	4.46	4.61	4.53	3.93	4.50	4.25f	3.17	4.18	3.71f
humiliate	1.74	1.50	1.62	2.73	2.97	2.87	2.45	3.21	2.86f
humor	4.28	4.69	4.48f	3.54	3.66	3.61	3.48	3.85	3.68
hurt	1.95	1.72	1.84	2.80	3.74	3.35f	3.28	4.26	3.81f
idiot	2.15	1.75	1.96	3.33	3.40	3.37	3.31	3.00	3.14
improve	4.23	3.97	4.11	2.74	2.83	2.79	3.66	3.94	3.81
inconsiderate	1.82	1.61	1.72	2.54	3.32	2.98f	2.83	3.42	3.15
industry	3.31	2.97	3.15	3.81	3.82	3.82	2.90	2.82	2.86
infection	1.60	1.36	1.49	3.33	3.40	3.37	2.76	2.85	2.81
ink	2.97	3.25	3.11	4.19	4.62	4.43	3.38	3.29	3.33
inspire	4.17	4.31	4.24	2.37	2.63	2.52	2.52	2.85	2.70
irritate	1.82	1.64	1.73	2.78	3.26	3.05	2.76	3.59	3.21f
jail	1.63	1.39	1.51	4.38	4.49	4.44	3.10	2.59	2.83
jealousy	2.07	1.53	1.82m	2.62	3.37	3.05f	2.86	3.53	3.23f
jelly	3.64	3.58	3.61	4.30	4.65	4.49	2.72	3.06	2.90
jewel	4.26	4.19	4.23	4.04	4.69	4.41f	2.46	2.47	2.47

Pleasantness Norms

joy	4.46	4.75	4.60	3.00	3.40	3.23	2.66	3.24	2.97
justice	4.05	4.46	4.25f	2.74	2.91	2.84	3.00	3.12	3.06
kerosene	2.71	2.53	2.62	3.59	4.06	3.85	2.17	1.88	2.02
killer	1.38	1.11	1.25m	3.67	3.94	3.82	2.97	2.88	2.92
kindness	4.50	4.39	4.45	3.00	3.49	3.27	2.93	3.26	3.11
king	3.85	3.92	3.88	4.37	4.46	4.42	2.52	2.26	2.38
kiss	4.45	4.81	4.62f	4.62	4.74	4.69	3.93	4.30	4.13
knowledge	4.08	4.14	4.11	2.85	3.17	3.03	3.48	3.91	3.71
lake	4.16	4.25	4.21	4.70	4.77	4.74	3.52	3.00	3.24m
laughter	4.55	4.72	4.63	3.77	4.23	4.03	3.43	3.82	3.64
learn	4.02	4.19	4.11	2.63	2.97	2.82	4.00	4.47	4.25f
leprosy	1.44	1.47	1.45	3.07	2.94	3.00	1.46	1.32	1.38
liberty	4.26	4.58	4.42f	3.04	3.11	3.08	2.64	2.27	2.44
lice	1.36	1.36	1.36	3.59	3.57	3.58	1.59	1.53	1.56
lie	1.64	1.69	1.67	2.65	3.09	2.90	3.54	3.79	3.68
life	4.51	4.64	4.57	3.19	3.63	3.44	4.04	4.35	4.21
loneliness	1.63	1.64	1.63	3.04	3.32	3.20	2.76	3.44	3.13f

Pleasantness Norms

louse	1.62	1.42	1.52	2.74	3.00	2.89	1.79	1.53	1.65
love	4.69	4.97	4.83f	3.89	4.29	4.11	4.41	4.56	4.49
loyal	4.46	4.56	4.51	2.63	3.44	3.08f	2.59	3.32	2.98f
lucky	4.40	4.47	4.43	2.70	3.20	2.98	3.83	3.76	3.79
luscious	4.13	4.34	4.23	2.89	3.21	3.07	2.66	2.56	2.60
luxury	4.25	4.31	4.28	3.78	4.24	4.03	2.83	3.06	2.95
maggot	1.44	1.39	1.41	3.96	3.69	3.80	2.14	1.47	1.78m
magnificent	4.38	4.47	4.42	2.52	2.69	2.61	2.55	2.68	2.62
malaria	1.63	1.69	1.66	2.26	2.86	2.60	1.79	1.59	1.68
malice	2.13	1.83	1.99	1.88	2.29	2.11	1.96	2.00	1.98
me	4.28	4.25	4.27	3.92	4.43	4.21	4.10	4.47	4.30
measles	1.78	1.50	1.64	3.33	4.17	3.81f	1.78	1.53	1.64
memory	3.63	3.97	3.80	2.31	2.71	2.54	3.34	3.85	3.62
menace	1.97	1.67	1.83	2.38	2.60	2.51	1.82	2.00	1.92
mildew	2.10	1.94	2.03	3.78	3.83	3.81	1.86	2.03	1.95
millionaire	4.44	4.42	4.43	3.85	4.26	4.08	3.00	2.82	2.90
miracle	4.53	4.42	4.47	2.93	3.31	3.15	2.62	3.00	2.82

Pleasantness Norms

moment	3.38	3.50	3.44	2.11	2.49	2.32	3.17	3.38	3.29
money	4.36	4.47	4.41	4.73	4.69	4.70	4.76	4.91	4.84
month	3.32	3.14	3.24	2.77	3.51	3.20	4.18	4.03	4.10
morbid	1.82	1.39	1.61	2.65	3.49	3.13f	2.07	2.18	2.13
morgue	1.80	1.36	1.59m	3.88	3.89	3.89	1.76	1.76	1.76
mother	4.52	4.60	4.56	4.74	4.82	4.79	4.24	4.26	4.25
mountain	4.16	4.33	4.24	4.73	4.74	4.73	2.90	2.79	2.84
movie	4.21	4.31	4.25	4.33	4.60	4.48	4.00	4.41	4.22
murderer	1.26	1.33	1.29	3.56	3.69	3.63	3.03	2.97	3.00
muscular	4.15	4.11	4.13	4.38	4.66	4.54	3.17	3.62	3.41
music	4.23	4.53	4.37	4.33	4.51	4.44	4.24	4.58	4.42
nature	4.23	4.44	4.33	3.85	4.46	4.20f	3.07	3.33	3.21
nazi	1.47	1.33	1.41	3.78	3.79	3.78	2.21	1.55	1.85m
nectar	3.50	3.51	3.51	2.92	3.43	3.21	1.57	1.85	1.73
nightmare	1.72	1.83	1.78	3.35	3.86	3.64	2.86	3.26	3.08
obesity	1.74	1.44	1.60	4.19	4.32	4.26	2.69	2.79	2.75
ocean	4.31	4.53	4.41	4.68	4.89	4.80	2.90	3.00	2.95

Pleasantness Norms

opinion	3.71	3.50	3.61	2.33	2.60	2.48	3.69	4.21	3.97f
orchestra	3.86	3.89	3.88	4.48	4.60	4.55	2.07	2.44	2.27
palace	4.24	4.49	4.36	4.37	4.66	4.53	2.28	1.94	2.10
paper	3.26	3.28	3.27	4.48	4.69	4.60	4.41	4.56	4.49
paradise	4.51	4.78	4.64	4.00	4.31	4.18	2.69	2.76	2.73
paralysis	1.60	1.42	1.51	3.15	3.77	3.51	1.93	1.88	1.90
party	4.28	4.31	4.29	4.12	4.63	4.41	4.45	4.65	4.56
passion	4.30	4.69	4.49f	3.33	3.38	3.36	2.86	3.65	3.29f
patent	3.25	2.89	3.08	2.59	3.03	2.84	1.90	2.06	1.98
peace	4.51	4.61	4.56	2.78	3.11	2.97	3.28	3.27	3.27
pencil	3.30	3.22	3.26	4.67	4.88	4.79	4.24	4.56	4.41
perfection	4.38	3.97	4.18	2.81	3.46	3.18	2.82	3.59	3.24f
person	3.95	3.83	3.89	4.04	4.63	4.37f	4.21	4.32	4.27
pervert	1.92	1.36	1.65m	3.37	3.46	3.42	2.79	2.88	2.84
pest	1.95	1.75	1.85	3.04	3.77	3.45f	2.41	2.79	2.62
pie	4.02	3.89	3.96	4.42	4.66	4.56	3.25	3.29	3.27
pillow	4.08	4.22	4.15	4.44	4.77	4.63	3.69	3.91	3.81

Pleasantness Norms

plant	3.79	3.92	3.85	4.46	4.71	4.61	3.31	3.29	3.30
pleasure	4.47	4.78	4.62	3.22	3.74	3.52	3.59	3.74	3.67
poetry	3.97	4.36	4.16	3.04	3.57	3.34	3.00	2.82	2.90
poison	1.42	1.36	1.39	3.41	3.71	3.58	2.52	2.21	2.35
politeness	4.31	4.53	4.41	3.19	3.59	3.42	2.72	2.97	2.86
pollute	1.66	1.53	1.59	3.81	3.74	3.77	2.66	2.82	2.75
poverty	1.56	1.42	1.49	3.30	3.79	3.57	2.50	2.79	2.66
power	3.82	3.61	3.72	2.70	3.31	3.05	3.76	3.59	3.67
prairie	3.92	3.83	3.88	3.85	4.43	4.18	1.86	1.50	1.67
pretty	4.56	4.22	4.40	3.41	4.20	3.85f	4.03	4.38	4.22
pride	4.31	4.06	4.19	3.07	3.31	3.21	3.10	3.12	3.11
priest	3.85	4.11	3.97	4.41	4.77	4.61	2.38	2.59	2.49
prison	1.45	1.56	1.50	4.56	4.46	4.50	2.86	2.50	2.67
privacy	4.08	4.11	4.09	2.81	3.29	3.08	3.24	4.09	3.70f
profit	4.08	4.17	4.12	3.19	3.43	3.32	3.45	3.32	3.38
promotion	4.33	4.42	4.37	3.00	3.15	3.08	2.69	2.74	2.71
prosperity	4.10	4.17	4.13	3.04	2.83	2.92	2.48	2.29	2.38

Pleasantness Norms

punishment	1.82	1.58	1.71	3.22	3.53	3.39	2.86	3.65	3.29f
puppy	4.22	4.44	4.33	4.74	4.89	4.82	2.59	3.24	2.94f
putrid	2.00	1.58	1.80	2.26	2.74	2.53	1.82	1.50	1.65
quarrel	1.95	1.97	1.96	3.15	3.49	3.34	2.61	2.59	2.60
rabies	1.30	1.44	1.37	2.81	2.88	2.85	1.79	1.56	1.67
radio	4.03	4.36	4.19	4.63	4.77	4.71	4.10	4.41	4.27
rage	2.02	1.67	1.86	3.00	3.31	3.18	2.34	2.38	2.37
rainbow	4.44	4.68	4.55	4.65	4.76	4.72	2.45	2.50	2.48
rape	1.20	1.25	1.22	3.73	3.97	3.87	2.93	3.59	3.29f
rat	1.77	1.44	1.62	4.62	4.71	4.67	2.59	2.44	2.51
rattle	3.02	2.51	2.79	3.73	4.57	4.21f	2.31	2.12	2.21
reformatory	2.05	1.69	1.88	2.96	3.06	3.02	1.57	1.56	1.56
refreshment	4.21	4.31	4.25	3.67	4.23	3.98f	3.03	3.44	3.25
rescue	4.22	4.17	4.20	3.56	3.63	3.60	2.31	2.62	2.48
respect	4.42	4.33	4.38	3.08	3.43	3.28	3.34	3.91	3.65f
revolt	1.97	2.03	2.00	3.04	2.89	2.95	2.31	2.29	2.30
reward	4.22	4.53	4.37	3.31	3.94	3.67f	2.93	3.24	3.10

Pleasantness Norms

riches	4.31	4.31	4.31	3.48	3.88	3.71	2.72	2.65	2.68
ridicule	2.05	1.75	1.91	2.81	2.71	2.76	2.18	2.74	2.48
riot	1.85	1.44	1.65m	4.19	4.00	4.08	2.62	2.68	2.65
river	4.16	4.11	4.14	4.70	4.70	4.70	3.52	3.59	3.56
roach	1.63	1.53	1.58	4.37	4.49	4.44	2.43	2.15	2.27
romantic	4.57	4.89	4.72f	3.44	3.89	3.69	3.34	4.12	3.76f
rotten	1.63	1.39	1.51	3.22	3.50	3.38	2.41	2.68	2.56
rude	1.67	1.72	1.69	3.00	3.43	3.24	3.29	3.65	3.48
rusty	2.24	2.03	2.14	4.19	4.23	4.21	2.79	2.30	2.53
salad	3.54	3.86	3.69	4.69	4.69	4.69	3.76	4.03	3.90
salute	3.55	3.37	3.47	4.08	4.12	4.10	2.28	2.06	2.16
sapphire	4.34	4.47	4.41	3.37	4.41	3.95f	1.54	1.74	1.65
savior	3.97	4.19	4.08	3.44	3.49	3.47	2.24	2.12	2.17
scholar	3.82	4.33	4.07f	3.81	3.94	3.89	2.59	2.88	2.75
scorn	1.63	1.89	1.75	2.63	2.97	2.82	1.69	1.88	1.79
scum	1.58	1.34	1.45	3.48	3.54	3.52	2.76	2.85	2.81
scurvy	1.92	1.42	1.68m	2.52	2.51	2.52	1.39	1.55	1.48

Pleasantness Norms

seasick	1.67	1.64	1.65	3.44	3.74	3.61	1.90	1.62	1.75
seat	3.36	3.03	3.20	4.19	4.33	4.27	4.00	3.76	3.87
sentimental	4.27	4.78	4.51f	2.63	3.23	2.97f	2.62	3.09	2.87
sex	4.41	4.47	4.44	4.41	4.43	4.42	4.41	4.62	4.52
shadow	3.21	3.08	3.15	3.96	4.44	4.23	2.45	2.68	2.57
ship	3.69	3.69	3.69	4.63	4.80	4.73	2.72	2.21	2.44
sickness	1.46	1.44	1.45	3.19	3.51	3.37	2.86	3.12	3.00
silk	4.37	4.47	4.42	4.04	4.60	4.35f	2.07	2.44	2.27
sin	1.77	1.58	1.68	2.74	3.45	3.13f	2.83	2.82	2.82
sissy	1.97	1.92	1.95	3.11	3.76	3.48f	1.41	1.82	1.63
slap	1.80	1.78	1.79	3.89	4.17	4.05	2.34	2.73	2.55
slaughter	1.47	1.31	1.39	3.59	3.40	3.48	2.14	1.53	1.81m
slave	1.65	1.44	1.55	4.22	4.26	4.24	2.41	2.00	2.19
sleep	4.36	4.28	4.32	3.63	4.37	4.05f	4.62	4.76	4.70
slime	1.59	1.50	1.55	3.33	3.83	3.61	2.03	2.35	2.21
slum	1.47	1.44	1.46	3.78	4.06	3.94	2.14	2.38	2.27
smallpox	1.33	1.36	1.35	2.92	3.62	3.32f	1.64	1.56	1.60

Pleasantness Norms

snob	1.82	1.81	1.82	3.30	4.14	3.77f	2.52	2.94	2.75
snuggle	4.25	4.58	4.41	3.33	4.09	3.76f	2.72	3.24	3.00
spirit	4.13	4.47	4.29	3.08	3.31	3.21	2.66	3.06	2.87
spouse	4.05	4.42	4.23	3.92	4.14	4.05	2.17	2.73	2.47
square	3.07	2.72	2.91	4.33	4.86	4.63f	2.79	2.97	2.89
star	4.38	4.33	4.36	4.56	4.71	4.65	3.07	2.85	2.95
stink	1.63	1.39	1.51	3.08	3.43	3.28	2.97	2.97	2.97
street	3.41	3.03	3.23	4.30	4.74	4.55f	4.41	4.06	4.22
stress	1.90	1.81	1.86	2.74	3.03	2.90	3.17	4.09	3.67f
stupid	1.90	1.69	1.80	2.67	3.14	2.94	3.72	4.12	3.94
success	4.58	4.28	4.43	3.04	3.49	3.29	3.48	4.24	3.89f
suffocate	1.70	1.53	1.62	3.11	3.43	3.29	1.79	2.19	2.00
suicide	1.33	1.39	1.36	3.44	3.83	3.66	2.76	3.15	2.97
sunrise	4.65	4.71	4.68	4.74	4.75	4.75	3.07	3.24	3.16
sunset	4.45	4.67	4.55	4.58	4.77	4.69	2.93	3.21	3.08
sweetheart	4.50	4.56	4.53	3.85	4.00	3.94	3.24	3.85	3.57
syphilis	1.51	1.17	1.35m	2.41	2.77	2.61	2.10	1.85	1.97

Pleasantness Norms

table	3.41	3.47	3.44	4.56	4.86	4.73f	4.10	4.44	4.29
talent	4.35	4.50	4.42	3.07	3.41	3.26	2.97	3.62	3.32f
termite	1.88	1.64	1.76	3.67	4.00	3.85	1.90	1.88	1.89
terrible	1.67	1.43	1.55	2.74	2.94	2.85	3.59	4.12	3.87f
terrific	4.42	4.69	4.55f	2.70	3.14	2.95	3.45	4.00	3.75f
theory	3.28	3.06	3.17	2.67	2.66	2.66	3.28	3.29	3.29
thief	1.63	1.78	1.70	3.77	4.06	3.93	2.90	3.06	2.98
thorn	1.77	1.86	1.81	4.41	4.54	4.48	1.83	1.68	1.75
thoughtful	4.03	4.64	4.32f	2.52	3.06	2.82	2.79	3.71	3.29f
thrill	4.30	4.25	4.28	3.12	3.43	3.30	2.66	3.18	2.94
time	3.46	3.53	3.49	2.67	3.37	3.06f	4.41	4.76	4.60
tobacco	2.17	2.11	2.14	4.54	4.66	4.61	3.24	3.18	3.21
tomb	1.77	1.64	1.71	4.19	3.94	4.05	1.72	1.71	1.71
toothache	1.41	1.40	1.41	3.37	3.71	3.56	2.10	2.09	2.10
tornado	1.79	1.86	1.83	4.41	4.38	4.39	2.17	2.24	2.21
torture	1.49	1.14	1.32m	3.56	3.62	3.59	2.10	2.26	2.19
toxic	1.67	1.78	1.72	2.30	2.74	2.55	2.62	2.50	2.56

Pleasantness Norms

tragedy	1.72	1.54	1.64	3.46	3.56	3.52	2.41	2.97	2.71
traitor	1.88	1.71	1.80	2.78	2.94	2.87	2.17	2.09	2.13
treasure	4.38	4.58	4.48	4.07	4.38	4.25	2.03	1.94	1.98
tree	3.90	4.00	3.95	4.65	4.71	4.68	3.86	3.76	3.81
triumph	4.40	4.58	4.49	3.33	3.06	3.18	2.59	2.44	2.51
trophy	4.38	4.11	4.25	4.48	4.68	4.59	2.28	2.18	2.22
trouble	2.40	1.83	2.13m	2.85	3.17	3.03	3.62	3.97	3.81
trumpet	3.33	3.74	3.52	4.70	4.71	4.71	2.00	2.18	2.10
trust	4.38	4.47	4.43	2.74	3.23	3.02	3.62	4.00	3.83
truth	4.51	4.56	4.53	2.33	3.14	2.79f	3.62	3.97	3.81
tuberculosis	1.65	1.56	1.61	2.38	2.66	2.54	1.72	1.41	1.56
tumor	1.38	1.19	1.29	3.15	3.29	3.23	2.28	2.06	2.16
ugly	1.56	1.67	1.61	3.30	4.11	3.76f	3.72	3.97	3.86
ulcer	1.63	1.31	1.47	3.23	3.09	3.15	2.21	2.32	2.27
unfaithful	1.67	1.39	1.54	2.63	3.46	3.10f	2.52	3.35	2.97f
unhappy	1.68	1.44	1.57	2.93	3.54	3.27f	3.00	3.85	3.46f
useless	1.79	1.92	1.85	2.33	2.74	2.56	2.83	3.50	3.19f

Pleasantness Norms

vacation	4.57	4.67	4.62	4.07	4.54	4.34	3.59	4.18	3.90f
valentine	4.44	4.69	4.56	4.15	4.56	4.38	2.03	2.42	2.24
vampire	1.97	1.69	1.84	4.42	4.29	4.34	2.00	1.53	1.74
vandal	2.00	1.54	1.78	3.48	3.46	3.47	2.48	2.44	2.46
vanity	2.46	2.42	2.44	2.85	2.94	2.90	1.93	2.32	2.15
vehicle	3.65	3.67	3.66	4.19	4.69	4.47f	3.52	3.32	3.41
venom	1.82	1.78	1.80	2.85	3.00	2.93	1.55	1.45	1.50
victory	4.42	4.31	4.37	3.70	3.71	3.71	3.03	2.85	2.94
village	3.85	3.61	3.74	4.26	4.51	4.40	2.59	2.24	2.40
violent	1.90	1.50	1.71	3.30	3.54	3.44	3.07	3.26	3.18
virtue	3.82	3.94	3.88	2.19	2.57	2.41	2.25	2.44	2.35
vision	4.30	4.14	4.22	3.00	3.34	3.19	2.97	3.06	3.02
vomit	1.44	1.11	1.28m	4.15	4.56	4.38	3.00	3.03	3.02
war	1.38	1.42	1.39	4.41	4.00	4.18	3.52	3.09	3.29
warmth	4.45	4.54	4.49	3.50	3.69	3.61	2.90	3.50	3.22
wasp	1.97	1.72	1.85	4.44	4.47	4.46	1.90	1.82	1.85
waste	1.87	1.53	1.71	3.07	3.49	3.31	3.14	3.59	3.38

Pleasantness Norms

water	4.13	3.86	4.00	4.77	4.74	4.75	4.39	4.64	4.52
waterfall	4.18	4.60	4.38f	4.81	4.65	4.72	2.14	1.88	2.00
wealthy	4.38	4.39	4.39	3.59	4.03	3.84	3.52	3.56	3.54
weapon	2.36	1.78	2.08m	4.26	4.57	4.44	3.34	2.91	3.11
wedding	4.08	4.72	4.39f	4.54	4.66	4.61	2.72	3.26	3.02
whore	2.00	1.19	1.62m	3.89	4.11	4.02	3.21	2.65	2.90
wicked	1.82	1.58	1.70	3.15	3.17	3.16	2.41	2.82	2.63
win	4.42	4.38	4.40	3.33	3.91	3.66	4.07	4.03	4.05
window	3.68	3.44	3.57	4.63	4.74	4.69	3.83	4.09	3.97
wine	3.80	3.97	3.88	4.44	4.71	4.59	3.41	3.79	3.62
wise	4.47	4.25	4.36	2.93	3.17	3.06	3.10	2.94	3.02
woman	4.47	4.00	4.24m	4.74	4.63	4.68	4.31	4.50	4.41
world	3.97	4.08	4.03	4.30	4.29	4.29	3.79	3.91	3.86

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Pleasantness Norms

Table 1

Distribution of Mean Ratings by Males and Females on the Pleasantness, Imagery, and Familiarity Scales for the 399 Words.

	Mean Rating Ranges				
	1.00-1.50	1.51-2.50	2.51-3.50	3.51-4.50	4.51-5.00
Pleasantness					
Males	.07	.35	.09	.43	.06
Females	.19	.23	.09	.34	.15
Imagery					
Males	.00	.05	.46	.36	.13
Females	.00	.01	.34	.39	.26
Familiarity					
Males	.01	.34	.46	.18	.01
Females	.02	.28	.38	.28	.04

Note.

Cell entries are proportions of the total of 399 words. The sum of entries in each row is 1.00.